

NOTE: The answers to most of the questions are organization specific. It is your organization that decides who it's customers are and how they obtain feedback (this was done as a CAITS action item and provided to Steve Durham in coordination with activities for inputs to the Marshall Implementation Plan.) It is your organization that determines its own quality objectives and where individuals fit in (again this is being worked with inputs to the Marshall Implementation Plan.) It is your organization that determines what metrics are important to track and analysis and informing its people where they fit in this process. Therefore, the answers will differ from one organization to another.

It is recommended that you contact your supervisor or your Marshall Management System / ISO organization representative if you have specific questions about your organization's approach to implementing ISO 9001: 2000.

Date: 11/28/01

ISO Element(s): Preventive Action

Auditee Organization Code: HEI

Building: 4471

N: So we are looking at Corrective Actions?

A: Customer satisfaction.

N: Start at Preventive Action; What can you show me for example?

A: One tool is GIDEP, are you familiar with ...

N: Yes, but I can't define it.

A: Government Industry .... Specifically, a chart we provide to the Quality Management Council for the last two times.

N: (to escort) did we have ... (a distinction between corrective and preventative actions?)

A: Corrective if it happens to you, we fix it; Preventive is so it doesn't happen to someone else.

N: That's pretty close.

A: In 4200, someone fell, so we have signs saying 'hold the rails' but not in 4201, 4202, and eventually we now have in all buildings. <pulls example>

(escort says) Slips, trips and falls are the number one cause of injuries

(2<sup>nd</sup> auditee) Paper cuts are #3

N: <going back to GIDEP ALERTS>

A: Shows chart, number of alerts we have impacted, and impact. We tell the world, one of my jobs is to distribute. So here was a problem; we informed our subcontractors.

N: What was the problem?

A: Let me see (starts opening files)

N: Plastic ...

A: Specifically, it was safety-critical, was limited to one instance, they checked it out.

N: So somebody saw a problem?

A: Yes, we sent it out to all our distribution.

N: How does it go out?

A: ... In fact, we have the web procedure right here. (gives printout to auditor) In the ALERTS notification, .... We had an old system when we just told. Now we have (improved?) the scope to where they can indicate on-line, as well as just see. OK, if we (??) an ALERT, ... sent it out, we give them 30-days to respond as well

N: (reads) Flight Projects, Express Rack, ... (is that all)??

A: No, the list keeps going, if it is an old one.... we send out closed. If not, send out ...

N: If I got one, what do I do?

A: Ask the question "Do I use it?" part number, manufacturer, lot-code, etc. So person says: If 'no' (not from the same manufacturer, etc.) they fill out a couple of (forms?) and it comes back to some supervisor, and if they agree, it is closed. If 'yes' they say how impacted: will it kill anyone? Tear up a piece of equipment? How do we (mitigate?)? etc. Then it goes to the Project for evaluation of impact and to S&MA to evaluate. If all agree, it is closed out.

N: Can I see an example?

A: OK (pulls up information on computer)

N: Oh you use the... what do you call it? Are all our procedures in this format?

A: Many used to, but not a mixture.

N: What about (selects example on computer) 7446

A: Part was used on shuttle. View current information about an ALERT... only the people directly related can see through normal chain. Here, defined Crit-1, loss of life.

N: Was the part used?

A: (Reads from screen) So they did check out, initially said stuff likely used, did a search, then said it was an older lot.

N: How many times .... ?

A: We do an annual report. 10 Items with impact from GIDEP.

N: Were all critical?

A: No, (half?) were.

N: So this is a government-wide program?

A: Yes

N: So, no particular action?

A: Just checked with suppliers to make sure not used, to close out.

N: Is GIDEP primary way of Preventive Action

A: No, Continuous Risk Management (gives printed copy of work instruction to auditor.)  
I'm not responsible for it. But they review it each time at a (?) and saw a beautiful example of it from ECLSS. Had another system but ...

N: What Risks....

A: Show you thought about it, What you did.

N: You don't have ....

A: No, since NASA (management requires?)

N: Who do we see about that? Before we get out of GIDEP, anything about data analysis?

A: Some trending in response to OWI.

N: You process corrective actions?

A: Yes, that's my job.

N: OK, lets see some examples.

A: Here are RCARS.

N: You're driving down response time for RCARS.

A: Currently we have 3.

N: What are DRs, QSDNs, ?

A: DRs are hardware non-conformances; Stands for "Discrepancy Report."

N: So each of these becomes corrective action?

A: No, just candidates. Many can fix on the spot if standards agreed to repair. Since started 45 determined ... to need recurrence control.

N: But still not require Corrective Action?

A: Recurrence control is the same as corrective action.

N: What is a QSDN

A: (defines)

N: OK, lets look. Are those related to ..

A: ?...

N: (Lets look at) DR's and QSDNs from September.

A: OK, so want to see RCAR's, DR's .... RCARs require con???

N: And DR's are just initial? Then RCARs?

A: Only one RCAR in September, actual was a DR. #176, not only DR, but only made RCAR.

N: Others relatively minor?

A: Relatively...

N: OK.

A: (Reading from computer) Happened in SUBSA. Configuration Management found problems with use of ...

N: Who wrote it up?

A: <Name> one of the Quality Inspectors.

N: Who assigned to work it?

A: SUBSA folk. (Gives names and positions.)

N: Do you have a required date for a response?

A: Several. One week for us to determine if RCAR, then 2-weeks once assigned to 'here is fix' or 'I need such and such time.' If less than 1-month, don't coordinate with higher-ups. If more, must justify to the project folk how long to work and (?)

N: (Reading off screen) Response date and Implementation...

A: Usually these the ..?

N: Back to the comment that not all DRs become RCARs. When?

A: If the thing is a recurring problem.

N: Second occurrence?

A: No, trend.

N: Third time?

A: Probably.

N: Is there specific criteria for when?

A: Yes. (Shows auditor section of document.)

N: What category does this fall into.

A: We have C-pack (screening?)

N: Is it a hardware failure?

A: (Reads from screening.) <2<sup>nd</sup> auditee> We try to be as thorough as possible with initial data fields.

N: ... MPG1284 and ... OK, good. Lets look at an ... from October.

A: OK, here we have a QSDN.

N: OK, #177.

A: Still Open.

N: Really?

A: OK, this is when drawings and sep??...

N: OK, lots of... what's the...?

- A: What do you have to include on drawings. Little (?) Once said yes, other said no, so until clear conclusion, we have an RCAR.
- N: Have root causes .... Is there a (spot?) that shows corrective action?
- A: Two ways: initiator and assignee opinion.
- N: Who decides?
- A: Up to the big-wigs to decide. Reviewed by (Management Council) and finally Axel (Roth) has to sign off. So they are studying it now.
- N: You study this data? Trend?
- A: For QSDN, charts, proto-type like shown.
- N: OK, you showed me...
- A: Pitch this month to MSFC implementation team and Quality Council.
- N: Is QSDN similar to an RCAR or DR?
- A: (Explains).. Both QSDNs and DRs can become RCARs.
- N: So DR is hardware; QSDN is process, and both can become RCARs?
- A: Yes, and customer feedback.
- N: Lets see.
- A: OK, #169 from April (QSDN in April #125)
- N: OK
- A: In this case concern about export control and visibility of data. We have all the export rules, but some documentation not properly classified and put on the web.
- N: Not a good thing?
- A: No. Assigned to <name>
- N: What is...
- A: (Reads)
- N: What is the root cause?
- A: Hmmm. How come we don't have? (2<sup>nd</sup> auditee) I recall this one. Everything was in place. <1<sup>st</sup> auditee) Let's see the write-up.
- N: Why does the form not have a space for root-cause?
- A: (2<sup>nd</sup> auditee) It does.
- N: I don't see it.
- A: Normally it does, but in this case I don't see it. Looks like ... I don't know. Mind if we try another one.
- N: OK, but I won't forget this number.

- A: Lets do QSDN #122. OK, here is what is supposed to be there. I can't explain why not on the other one.
- N: OK.
- A: In this case, the contractor bought Velcro. It had to do with vendor-supplied equipment. <2<sup>nd</sup> auditee> Resulted in clarification of what is what. <1<sup>st</sup> auditee> So in this case. You ... bake out ... so they were taking their own quality control and didn't see NASA need since contractor testing (their own?) equipment.
- N: So, going back to #169.
- A: Summary...doesn't have it.
- N: How can that be?
- A: Unless closed by explanation, but that should show. (To 2<sup>nd</sup> auditee) can you get the hardcopy?) (2<sup>nd</sup> auditee leaves.)
- N: What about action?
- A: OK
- N: This is Open?
- A: Closed. (Reads from hardcopy supplied by 2<sup>nd</sup> auditee). OK,.... <2<sup>nd</sup> auditee> (It was) closed by explanation. <1<sup>st</sup> auditee> Basically, no root cause, because not a problem.
- N: (Reads procedure document) Corrective action, closed by explanation. Is that in here?
- A: (Shows in document) Closure process... And determines... <2<sup>nd</sup> auditee> In this case, I think needed actions had already been done before this. <1<sup>st</sup> auditee> We only have to have a root-cause if there is something that needs to be done.
- N: Very good. So, we looked at corrective action, RCARs, QSDNs. What else should I ask you?
- A: (Escort) What to go see Risk Management Plan?
- N: Where?
- A: (Escort) <Name> in building 4610.
- N: OK. What about analysis of data?
- A: Here is what <name> will show you because he gave me a beautiful example. (Shows ECLSS Risk Matrix) Explains likelihood vs. severity.
- N: Likelihood of anomaly? Yellow...
- A: Of whatever they were concerned about.
- N: Trying to hinder probability of occurrence?
- A: Or mitigate severity.
- N: Is he available?
- A: (escort) Yes. (1<sup>st</sup> auditee) This is exactly what we have in mind for Preventive action. Glad they do it, even if not the method we initially recommended.

N: (Reads) What is XX?

A: Have to ask them.

N: A contractor?

A: Yes, I think <contractor name>.

N: That's where I used to work. Can I keep this?

A: Yes. (Shows how matrix key is read.)

N: Looks good.

Date: 11/28/01

ISO Element(s): Preventive Action

Auditee Organization Code: FD21

Building: 4610

Introductions...

A: Come. Hear you want to talk about Risk Management?

N: Do you have a procedure that governs Risk Management Planning?

A: Yes, In Project Plan we have a fundamental process that ... (Gives document) That document says where are risks are and says we will track in our database, track the ?, etc.

N: Do you do this?

A: That's our document.

N: Who is us.

A: (explains organization and responsibilities from org-chart.) This Risk Management Plan is our implementation of the MSFC requirement.

N: How do you relate to MSFC? They your customers?

A: No, We're part of MSFC. (Shows MSFC org-chart and explains.) I work for Marshall. My customer is station office at JSC.

N: So when you talk "our document" its not a procedure?

A: (escort) No - implementation of it. (auditee) To implement that process, we've written that document.

N: (Notes date)

A: I pulled this off the web. We maintain our documents on the web. We have a lot of people... plus contractors.

N: Do you also use MSFC site and documents?

A: Yes, the controlling documents are there. Then we have our own instructions that say specifically how we (operate?)

N: Does central group audit other orgs?

A: Yes.

N: OK, I got a bunch of (additional?)

A: What we do is maintain the database – it is official. But monthly I get a printout. I provided those as good examples: one open, one closed.

N: What is driving us to look is Preventive Action.

A: I guess not everything we put in Risk Management is in that category, although in a sense perhaps it is.

N: You have examples; Lets take a couple.

A: OK

N: Wow, a big one. Start with a ...

A: Yes in this case concerned about...Concerned about flight wouldn't pass because of embrittlement, so what we did is develop plan to do samples, track progress, etc.

N: Is this closed.

A: Let me see.

N: Is it online?

A: Maintained electronically, but not really on web. OK, it says current status 'mitigate' so no, but is closed now. Some have taken very long.

N: ECD means?

A: When we expect to close action. Oh, I see. Your printout is an old print. It is closed now. I only print open ones. Here is where it would say closed.

N: And they are all green or yellow.

A: We've had red in the past.

N: This is helpful.

A: (escort) All project required to do some version.

N: Quality objectives: Are you cognizant of Quality Objectives as they flow down?

A: I'm unsure of the question.

N: I'm trying to understand how .... Goals and objectives.

A: Yes, for us we have to deliver (describes hardware) and that is our fundamental requirement. Not what you are asking?

N: That's like a contract requirement, but at a fundamental level it may be. There are five listed in the manual.

A: Oh the 5 values?

N: Do they correspond?



A: (escort) In some cases they do. (auditee) Some of that is being handled at the Directorate Level. But from continuous improvement in particular it's at the Directorate Level for establishing how we contribute to MSFC. I contribute to that but don't have my own at this level.

N: What level are you.

A: First-line supervisor.

N: "...A continuously learning workforce." Sound familiar?

A: Yes. Don't have formal plans, but at the agency and center level we do have classes, etc. that we (track?)

N: Goals/objectives or just ...

A: There is talk at Center and Directorate strategic Plan about developing requirements. Generally not for project management, but credit cards and COTR have requirements.

N: Familiar with the Quality Policy? Tell me.

A: Recites.

N: How many values.

A: Five.

N: Name one.

A: (Recites all five)

N: Good.

A: Our Director nominated for awards based on values. Really helped me to learn them.

N: A lot of paper.

A: I started asking for printouts to assure data up to date.

N: One of the better examples of Preventive Action, both product and process-related.

Date: 11/28/01

ISO Element(s): Customer Satisfaction

Auditee Organization Code: CD

Building: 4200

N: Who is our customer?

A: Evolving. In this office all employees are the customer.

N: You're talking internal. Do you draw a distinction (I vs. we?)

A: No. Only in the sense we are starting to review customer satisfaction.

N: So if everyone is a customer is everyone on here?

A: All civil servants and contractors since we are CaER we also have external customers such as HQ and others.

N: ?

A: We have a feedback system...send us a complaint. We also do surveys: Shuttle does this. In CaER doing a customer satisfaction survey, send out and record results.

N: Do you currently have a clear perception of customer satisfaction with (?)

A: Haven't had negatives from congress. Everyone working on better ways. Don't have a survey but want to say yes.

N: Basis?

A: Haven't heard negatives from Congress, the Administrator.

N: Would you hear it?

A: Not initially, but then yes.

N: What kind of feedback?

A: About 14 feedback forms, mostly positive.

N: Can I see some?

A: Sure come back to my office. (Working on computer.) Under Inside MSFC, under ISO, customer-satisfaction website. Folks can go in and fill out feedback forms. (Shows example.)

N: By date. What happened 88 through 110.

A: May have had a trial (data entry).

N: Lets go down

A: Filed by <name> about <name>

N: So an "atta-boy" for somebody.

A: Yeah, no real specific. Want to try another?

N: In the past...internal...1,2, external. I just want to get an idea how many coming in ... Apparently they can take a number, submit months later. About two per month?

A: This is just one way of measuring customer satisfaction.

N: Are we sure they are all customers?

A: Yes. Employees can enter data, phone calls...

N: Number 34

A: NASA HQ talking about workshop (escort) Also got one on SXI

N: So, what did he say, why are all these blank?

A: These are (reads category) hopefully he's ...

N: Again, idea of who external customer is.

- A: (escort) You have customer lists, right? (auditee) Yes, on customer web site each office has provided list of who their customers are. (Shows.)
- N: Each has a customer?
- A: Each has a list and a coordinator for customer satisfaction. Not set up yet, but place to see their activities.
- N: Who are Shuttle customers.
- A: (Reads)
- N: Internal or external?
- A: Some internal. (Shows one) He works for JSC.
- N: Whose organization is this?
- A: This is CaER – mine.
- N: How many external?
- A: Not identified, but obviously some of these are (retirees, etc.)
- N: Who is this?
- A: Flight Projects. (escort) They created the first list as a prototype.
- N: They identify, list, external, etc. Any perception of customer satisfaction?
- A: (escort) FD probably can give.
- N: For your organization, can you?
- A: Again, working on survey forms to measure. Until we measure it, we won't know. Some organizations have wonderful systems. This won't replace, just add. So organizational customer coordinators will summarize the results.
- N: So there is a need to be proactive and go out?
- A: (?)
- N: So this seems to be very preliminary.
- A: (escort) At center-wide level, yes, but not if you talk to some of the Projects.
- N: Want to do that?
- A: (escort) Discussed setting up with subsequent interviewees. Had a system.
- N: Having it on a shared drive like this is a great idea, especially if you can get from all organizations.
- A: (escort) At this point there isn't much data, and all of it is positive, so we don't trust it, and want to use a more scientific approach.
- N: Do both: send out survey and establish face-to-face. Structure based on survey results to avoid "how are we doing" ... Best of both if you can get a contact from customer. Companies are relying on surveys, but that is passive; Need to go out
- A: We've had a customer satisfaction system for years, just not good one.

N: Didn't <name> say

A: (escort) Yes, I think you'll like what S&MA has to show.

N: Questions (for me?)

A: Want to see a balanced scorecard?

N: Sure

A: (escort) Would answer questions you had about this morning. (auditee) This is what we are working on: Take center-level metric and sort by continuing improvement, supporting NASA-target, etc. If you can ... you have control of your system. Can also sort metrics by 14 offices, or goal. Not all loaded yet. Below the line shows if failed. Presented to Art Monday. Want to add values and safety. (shows sort on continuous improvement.)

N: OK, back to customer –satisfaction (reads.)

A: We wouldn't accept today. Customer satisfaction involves much more than just meeting contract milestones. Just using 2000 data for test.

N: So this is not a current thing?

A: (escort.) No, not even available to all.

(auditee) Loading 2002 metrics from implementation plan; now they are real. (escort) Only ED and AD had goal in past (90%). But all have one and working toward next year.

Date: 11/28/01

ISO Element(s): Continuous Improvement

Auditee Organization Code: CD - education

Building: 4203

N: ?

A: (escort) This morning we ... and we looked at improvement (in) FY01 (auditee) 6180 total (instruction hours?)

N: That's.... Could be 1 hours or 8 hours?

A: Yes. 6? 20 technology assisted...

N: That's in addition

A: Yes. So this is the baseline, and our attempt is to be greater than that. Our "smart book" as we call it our management asked to know, so she asked she can go to the book and get data. She asks for it once/month. Not the only place we keep metric. Every class we conduct we keep (?) That's kept in Adminstar. We're asked all the time for data so lots of how we report...

N: Are you involved at all on any (?) training, or just (?) Related question, if training being done is effective? Meeting a (need?)

A: We get feedback from every session, all sorts of forms.

N: Who fills out forms?

A: Participants who actually took the training. For (the Directorate?) we compile who took class, is this a skill-gap, etc. Then at the end of the year, we see if we've done (total?) Also tied to center metrics "balanced scorecard."

N: Do you (?)

A: Yes, at MSFC training and human resources are two separate organizations. Our objective is to increase training opportunities. We have that right here. (Shows chart.)

N: What was actual goal/objective?

A: It was 10% above.

N: Was that last year?

A: (escort) That's next year. (auditee) For our organization it was. Don't quote me on the 10%.

N: Did you meet it?

A: Better than meet. For 2002 our budget is increasing. From Center Director and Administrator, said everyone should spend 10% of time in training.

N: Is that a goal?

A: No, not a mandate, just what he said. But we are working. Went from 55 to 1500 course in e-learning in FY02 already. (Already met goal for improvement.)

N: Quite a commitment.

A: Yes. We don't anticipate problems, but we don't have 2002 budget yet. Won't know until budget signed by the President.

N: THE President?

A: Yes.

N: W?

A: Yes?

N: Wow. That would be quite a follow-up interview, to go speak with the US President! Any questions (for me)?

A: No.

N: Anything I should ask?

A: Can't think of a thing, but I can say we've worked very hard and the center has placed emphasis. Always a changing process.

N: What was the 55 to 1500?

A: Electronic learning assisted opportunities. In the basement of 4200. Can go outside as far as the University of Phoenix.

NQA Surveillance Audit

N: Must be job-related?

A: Yes, must be justified by the requester's supervisor.

Date: 11/29/01

ISO Element(s): 8.5 w/8.4

Auditee Organization Code: AD40

Building: 4200

N: What is your organization called?

A: Logistics Services Department/AD40. Described organization work activities.

N: Do you have a handle on the Continuous Improvement (CI) Process?

A: We have several examples of CI. 1) One method is the MQC. In the Property Arena, we presented improvements of the responsibility and control of government property. 2) Another property innovation was the Mobile Property Pass. Showed MSFC Form 4373. 3) Another example in the Transportation area is with our GSA fleet cars. 4) Also, the Property MM 4400 document was eliminated and divided into multiple smaller MPG/MWI's. 5) Web based training system instead of Morris Auditorium.

N: Is there a method for evaluating the Quality System (impact/evaluation) to identify weakness and co-ordinate the overall effort?

A: 1) QSDN, Internal Audit Results published with scribe notes on web. 2) Internal Audit – shared with center 3) MQC review findings of Audits 3) Systemic finding, look at weaknesses. 4) Correct Act for Center as a whole. 5) Process Imp - AD01 performance required to 90% Customer Satisfaction Metric 98%, JIT Admin Supplies 100% from department standard from MSFC Imp Plan – 2001.

N: How is CI embedded and influenced within the org?

A: 1) Buy-in required from other areas. 2) Center Director- initiatives – MSAT, ISO9000.

Date: 11/29/01

Auditor: Rick Giguere

ISO Element(s): 8.2.1

Auditee Organization Code: AD01

Building: 4200

Escort: Mary DeMurray and Dawn Stanley

N: How do you distinguish between the overlap of CI/CS?

A: Must know whom the customer is; know their perception due to the many customers of this Directorate: internal, agency, external. Must talk to customer in alignment with the

Presidential Quality Award (govt. version of Malcolm Baldrige Award). Must focus on customers and get their input via surveys and through electronic media. For example, AD01 Customer Survey May 2000. Showed survey. June 2000 results displayed the correlation/divergence between employee and customer perception of importance and priority of services. Implemented Integration Team to communicate with customers with face to face interaction. This is drilled down through the contractors (22 contracts) through the contractor customer satisfaction results. March 2001 survey showed improvements still needed. Must allow lowest level to make the changes and be more efficient.

N: Are there lots of complaints?

A: Yes. Because people are people. For example, out of 24K facility work orders 2-3% result in complaints (400 – 700).

N: How does the customer feedback system work?

A: QUALCOMM is used for the external customers. The Facilities Engineering Dept. is trying to roll together with their customer feedback information.

N: What is the composition of the center?

A: 8000 people. 1400 contractors that support AD. 14 other directorates. Not all have feedback like AD's which was started 2 years ago. Customer objectives within AD is 90% satisfaction. Currently, there is 93-94% satisfaction within AD.

N: Does each directorate at MSFC set individual goals?

A: At least half of the center still needs to make progress in this area. The center is making overall progress with the new MPG 1280.8. AD01 goal to see metrics roll up daily, not there yet.

Date: 11/29/01

Auditor: Rick Giguere

ISO Element(s): ??

Auditee Organization Code: CD01

Building: 4200

Escort: Mary DeMurray and Dawn Stanley

N: Are there CI measures?

A: Yes, at the Department level, some stronger than others.

N: What kind of metrics?

A: For example, the Media Dept keeps record of the no. of live shots > 400, no. of video files, no. of press kits. These are maintained with a CI Tool "Smartbooks". This ref. Material keeps track of goals, objectives, budget and FTE's for each org. For background: NASA's goals are documented in the Strategic Plan/MSFC's in the

Implementation Plan. For example in the Media Dept., the goals/obj: Max. media exposure for MSFC programs and min. neg. issues to enhance the media relationships and monitor/evaluate success for each program.

N: Can it be measured?

A: Yes. For example, amount of media ad value est. \$\$\$\$ , 125 exhibits reached 600K people, 400+ live shots, est. 400 mill. Reach potential, 7 mill. Web hits (worldwide).

N: How is this disseminated through the organization?

A: Each "Smartbook" is used at the Dept. level. The information is penetrated to the individuals of the Dept. to know the goals/objectives/metrics.

Date: 11/29/01

Auditor: Rick Giguere

ISO Element(s): ?

Auditee Organization Code: CD70

Building: 4200

Escort: Mary DeMurray and Dawn Stanley

N: Are there specific objectives established for the Media Relations Dept.?

A: Yes. This Dept. has 2 functions media and exhibits. The "smartbook" keeps info on people and overall goals – to max. media attention and to min. negative coverage.

N: How are these measured?

A: 2001 metrics tracked press releases – goal of 39 (12 performed). Results – news items, cost, believability (ratio) – industry std.

N: CI goals?

A: Large picture – quantity, small picture – processes/how to improve. Starship 2040 (exhibit) met with customers and made changes before initial implementation. Most feedback through face to face communication.

N: How are changes suggested for processes?

A: Through an exchange with the customer. The customer demands are negotiated with the customer based on cost/impact. Most suggestions from the public require smaller changes.

N: Has the product improved?

A: Yes. Starship 2040. Other CD01 improvements include NASA Stars (resume system), Tech Transfer shortening of Space Act Agreement process, and redesign of the website.

N: Are the objectives measurable?

A: Goals vs. where we stand. Displayed actual figures through 3<sup>rd</sup> qtr.



N: What were the objectives?

A: Certain objectives were selected to emphasize. We still need to evaluate the approach of the goals. Some do not have metrics.

N: Does increase in one mean a decrease in another?

A: No. They are totally autonomous.

Date: 11/29/01

Auditor: Rick Giguere, NQA

ISO Element(s): Management Responsibility

Auditee Org.: DE01

Building: 4200/916B

Escort: Mary DeMurray

N: You are the Management Representative, is that correct?

A: Yes

N: Well let's start with your role in insuring the promotion of customer requirements.

A: We've added the customer satisfaction aspect to our program. It's not a new thing that we're doing, but it's more formal. Since Art has been here for the past 3 years, we've improved in that area. We've instituted new measurements. What we hoped to get out of it is where we've fallen short and then improve the system.

N: How/are the employees aware of customer requirements?

A: Yes, we flow the customer requirements down from the projects. The customer requirements are in the project documentation.

N: Do you do anything in particular to ensure that people are aware of the program plan?

A: Yes, we have an organization that ensures what goes into the documentation and then it is flowed down. There are monthly reviews by all of the projects. Senior level management is not always there, but the next level of management is always. We also use stop light charts that status the project's cost, risk, etc. Senior level management attends these meetings.

N: Will I be able to look at some of these stop light charts?

A: Yes, and if you need copies, we can get them for you.

N: (He looks at the Science Directorate Monthly Executive Summary and the last MQC report.) O.K. let's talk about management commitment. Do you have a role in establishing quality objectives?

A: Yes, I work with developing the objectives. Here is a list of the five quality objectives.

a.) Satisfy our customers with our products and services;

b.) Continually improve our process;

- c.) Detect non-conformances and take corrective action;
- d.) Improve corrective action response time;
- e.) Provide a continually learning workforce.

N: (He looks at objective “a”) How do you measure that objective?

A: Through the monthly reviews with our customers, surveys, and management paying attention to customer requirements. We take them very seriously.

N: Where are we at meeting this objective? What percentage?

A: I don’t think we are at 100%. I would think we are between 80-90%. In the technical areas, I think we are above 90%.

N: Do you have anything documented that shows this? I’m struggling with how the metrics work for continuing improvement.

A: I’m not sure that we are totally there yet. We do have metrics in place, but some are fairly new. I suspect that we will find that some things we tried to measure will be insignificant. In that case we would have to find another way to measure it. (Shows him the MSFC Implementation Plan that has some metrics in it.) Some of our new metrics and data will be in the next Implementation Plan that will be published next year.

N: (He asks questions about the MSFC Implementation Plan and how the data is measured.) What are RCARs?

A: Explained RCARs, MSFC IP, and the process of inputting the data.

N: (He looks at objective “c”.) How do you measure this objective? How do you measure good/bad or getting better/getting worse?

A: We are moving towards decreasing the number of non-conformances and the severity of them. You can always improve your processes. I don’t think you can ever reach 0 non-conformances, but we should try to get to a minimal number of them.

N: So you don’t have a metric for this process?

A: It’s not hard data, but it’s more subjective. I think the auditors are doing a good job at detecting non-conformances and taking corrective action.

N: Basically, I think that the objective is difficult to measure. Where are we with satisfying our customers?

A: We do have measurements for this. We can go and look at the data. (Talked about the customer feedback system, customer surveys, balance scorecard website, and stop light record.

N: Is there a metric for objective “e”? (Providing a continually learning workforce)

A: Yes, the CaER organization has those metrics. (Explains the CaER org. and different training options for employees.)

N: Do these quality objectives tie into the quality policy and has it changed since the last time we audited?

A: Yes

N: How often do you review your policy?

A: I don't know that we have a set time, but we have been reviewing it at the MQC, which occurs 2-3 times a year.

N: So we have to go to the CaER Directorate to review metrics on the continuing education objective.

A: Yes. (He discusses the MQC and what goes on in these meetings.)

N: (Looks at the MPD/MMM) Where do you fit into this org chart?

A: In the office of the Director block.

N: All right, let's talk about something else. How do you communicate the effectiveness of the ISO program?

A: All employees can access the ISO information on the website. The MQC reports are also there.

N: Can I see a report from your last MQC?

A: Yes (Hands him a copy to skim through.)

N: (Asks about the actions from the MQC.)

A: Explains

N: What would be an example of an improvement made to a product? What is your product?

A: A product can be many things....from a document to a piece of hardware. (Shows him a specific product improvement success story from the MQC.)

N: Does the agenda include customer feedback?

A: Yes

N: (Looks through the MQC report.) What are these charts based on? What are these recommendations for improvement? (Auditee explains....)

N: O.K., this looks good. Do you have any questions for me?

A: Not in particular. Our metrics are reviewed periodically. Some of them may not give the data we need. If this is the case, we try to improve our metrics.

N: I do think that one of these objectives may be a little weak. Detecting non-conformances, but everything else looks good.

N: Thank you for your time.

Date: 11/29/01  
Auditor: Rick Giguere  
ISO Element(s): Documentation  
Auditee Org: AD33  
Building: 4200/940  
Escort: Mary DeMurray

N: Introductions

A: Explains the MSFC Directives

N: Let's go through this section. Control of documents.

A: MPG 1410.2 (Explains the documentation revision process.)

N: Do you have any objective evidence of this process? How long have you done this?

A: Yes, I do. We are actually going through a cycle now. 3 years

N: Can you show me the Annual Review Records?

A: Yes, but it's in my other office. Someone can go and get it for you....(Shows him the file, and talks about the directives manager tasks. Gives him a copy of the master list.)

N: There is a new requirement on documentation. Have you made any changes to your processes for this change?

A: (Shows him the document MPD 1280.1, and talks about the document numbering system.)

N: (Looking at section 4.) Do you do any outsourcing processes?

A: We do a combination of in-house and outsourcing. The entire calibration facility is outsourced by a contractor.

N: Do we require them to follow ISO 9000 requirements?

A: Yes, on all new contracts we do require them to follow these requirements.

N: O.K. I will have Joe Grieco verify this when he goes to the calibration lab. Are there any exclusions?

A: No. No exclusions, everybody is under ISO.

N: What is the OPR designee?

A: Office of Primary Responsibility

N: Do you have any Quality Objectives

A: Yes, and for the center it's 90% for customer satisfaction. Yes, we have metrics (shows him some) and surveys. The overall level of satisfaction is 4.7 out of 5.0

N: This is good. This ties in to both the objectives and customer satisfaction. (He looks at the Directives Management Survey)

A: Explains, Directives Control Board Process and Continual Improvement Process.

- N: Do you have any of these that are open? (show me)  
A: Yes, (Gets on the computer system and shows him the database. Explains the Directives Control Process System.)
- N: Are you deleting any documents as a result of this system?  
A: No
- N: Thanks, I'm all done. Do you have any questions for me?  
A: No

Date: November 29, 2001  
Shift: Afternoon  
Auditor: Rick Giguere  
ISO Element(s): 6.2 Human Resources  
Auditee Organization Code: CD 10  
Building: 4200  
Escort: Mary DeMurray

- N: What is your job?  
A: (Described function of office)
- N: What would be considered objective evidence or your metric?  
A: Hired those been asked to hire. Waiting on Headquarters direction, little hiring expected over the next few months.
- N: How do you report on that objective?  
A: Keep boss informed on hiring. Activities reported in weekly notes. Track new hires each Wednesday.
- N: What was the objective at the beginning of this year?  
A: It was a moving target. A year (2000) the number was about 200. Needs change with retirements. The number for 2001 will be considerably smaller.
- N: Lets talk about the competency area. How do you define competency?  
A: The ability to perform identifiable job functions.
- N: Are they identified for each job?  
A: Yes
- N: Does each hire know them?  
A: Yes, they are defined by the Office of Personnel Management.
- N: Show me an example.

A: Everything is rule driven. (Went to OPM website. Reviewed requirements for a position like the Auditor Manager i.e., Administrative Analysis Position and a clerical position).

N: That's what is used for competency?

A: It is used for minimum competency.

N: Where does a person look for a job?

A: Look at vacancy announcements posted on line.

N: Is this open to the public?

A: Some are, some are not. Those open to public are posted on OPM website.

N: How does a supervisor know someone in a job has the right competency level to meet job requirements?

A: It is supervisor's job to insure people have correct training, ability and tools. A good supervisor monitors the quality work utilizes the reporting system for performance appraisals.

N: Does each person have a Performance Appraisal?

A: Yes, part of it is generic and there are specific performance requirements that are tied to the strategic plan.

N: What is yours?

A: (Read it from interviewee performance plan).

N: Have you had a performance appraisal?

A: Yes, we have a pass/fail system.

N: You can identify competency needs based on evaluation?

A: Everyone in CaER is required to have an individual development plan. In mine, I identified areas where I thought I needed to have additional training. One of those areas was advising managers on dealing with employees with mental health problems.

N: How do you know you what training is required?

A: The situation happens often enough where I think I need some training. My Supervisor, on the other hand, thought I needed training in work breakdown structure analysis. The Center Director looks at administrative projects in the same way as technical projects and knowing WBS would help in responding to the kind of assignments we've been given lately. Once a year I have to work on the Fair Act inventory, which is a job that has to be done using spreadsheets, so it would help if I had some training in Excel and Power Point.

N: So he is enabling you to enhance competency needs.

A: Yes

N: Do you know how what you do to feeds into overall objectives?

A: Yes, my primary job is to insure that there are people to fill the positions needed to for the Center to conduct work.

N: With respect to individual evaluation of competency, does each supervisor maintain records?

A: We have centralized performance appraisal records.

N: Performance Appraisals are maintained in Personnel? Have names of individuals to see if the evaluations are done?

A: (Took redacted sample of one Performance Appraisal that demonstrated how to hold person responsible). Typically we have 1 or 2 unsatisfactory Performance Appraisals issued per year. This year we had six. When an employee is given an unsatisfactory rating the center has options to: (1) reassign the individual; (2) develop a performance improvement plan, (PIP) that tells the employee in detail how to come up to a level of acceptable competence. The PIP can include training. An assessment is done at the end of 60 days. If the individual has not improved, management can demote or remove the individual.

N: Have you been using this method for a while?

A: We have used the two-tier system for 3-4 years. Prior to that we had a 5-tier system. NASA dictates the type of system we use. OPM provides 3 options: 2-tier, 3-tier and 5-tier.

N: Why did you go to a pass/fail system?

A: NASA has had problems with grade inflation.

N: Is the Union involved?

A: Yes, we have two, MESA, (IFPTE) and AFGE local 3434.

N: Do you have procedures that govern performance?

A: (Showed document on NASA procedure).

N: Do you have a MSFC version?

A: No, we do not duplicate at the lower level.

Date: November 29, 2001

Shift: Afternoon

Auditor: Rick Giguere

ISO Element(s): 5 Management Responsibility

Auditee Organization Code: ED 01

Building: 4200

Escort: Mary DeMurray

N: Do you have a role in the Implementation Plan?

A: Yes, (described metrics of 2001 plan). Updating 2002 document. Work with Customer and Employee Relations Office in integrating the document.

N: Why Customer and Employee Relations Office?

A: They have information and communications sources and they are the focal point for the plan.

N: Would you know how you doing on these metrics?

A: Yes, they are reported to the Center Director.

N: Is there a connection between Implementation Plan Objectives and the Quality Policy?

A: Yes, the accomplishment of objectives facilitates providing quality products and services. The policy is tied to Engineering Directorate's Core Strategy and strategic plan. Conducting Structured plan the past 2 years. Develop strategy for ED on how meet the policy. Strategic drives actions.

N: How far do objectives flow down?

A: To individual and team level. (Gave example of recruiting link to core values)  
Established grass root team to work issues relating to recruiting engineers.



Date: November 28, 2001

ISO Element(s): 6.3 Infrastructure; 6.4 Work Environment; 7.2 Customer-related processes; 7.2.2 Review of requirements related to the product; 7.2.3 Customer communication; 7.5.4 Customer property

Auditee Organization Code: FD23

Building: 4610, Room 4044B

N: Could you tell me what you do?

A: Group Lead for the External Carriers group within the Flight Projects Directorate. Our group is principally responsible for integrating payload elements onto a carrier.

N: That ought to fit under 6.3c – supporting services (such as transport or communication).

A: We have a contractor we use to do analytical integration of the payload with the carrier, and a whole list of other tasks, up to and including the flight readiness reviews to transport the hardware to space. We do contract management. Everything operational is done at the Cape – we do the sustaining engineering.

N: Can we see the contract?

A: The COTR has that. We can get him to bring it though. *Conversation continued and the COTR brought and showed the auditor a copy of NAS8-39400 Payload Carriers Integration contract. Mentioned that the contract was old because the name had recently been changed since the Payload Carriers Program is the primary customer.*

N: The only part of the contract that I'm interested in is the supporting services.

A: Contract is with XXXX. We do monthly reviews with them. Showed the auditor the presentation package from the mid-November monthly meeting. Discussed that for each payload item the following types of information are discussed: status, support activities, issues, etc.

N: 6.4 Work Environment – is that spelled out anywhere – are they talking about clean rooms?

A: All of our facilities are located at and controlled by the Cape – we don't have any.

Date: November 28, 2001

ISO Element(s): 6.3 Infrastructure; 6.4 Work Environment; 7.2 Customer-related processes; 7.2.2 Review of requirements related to the product; 7.2.3 Customer communication; 7.5.4 Customer property

Auditee Organization Code: FD23

Building: 4610, Room 4044B

N: 7.2 - Are there any customer requirements that may be specified by the government?

A: Safety requirements – customer may provide something that is functionally okay but violates safety requirements, for example has sharp corners. We bring in the safety requirements in the design process – systematic process of design reviews – get functional requirements from customer, document in the Interface Control Document (ICD), it's almost the first document developed and lays out all considerations of both NASA and the developer – dedicated to a particular flight.

N: 7.2.2 Review of requirements related to the product – How is this done?

A: Each project has a lead who defines quality records, which includes review minutes, action log, etc.

N: Are actions tracked.

A: Yes.

N: 7.2.3 Customer communication: The organization shall determine and implement effective arrangements for communicating with customers in relation to a) product information, b) enquiries, contracts or order handling, including amendments, and c) customer feedback, including customer complaints. Is this covered in the contract?

A: Usually the customer specifies what is acceptable to them. Provide monthly review to customer (OM6 MSFC/KSC Monthly Review). Documented in the Internal Task Agreement (ITA) which defines what we will do for a given year.

N: 7.5.4 Customer Property – Do you have or receive customer property?

A: We are primarily a service organization. We don't take custody of customer hardware – it is turned over to the Cape. Occasionally some is shipped to us for matching machining of fixtures or something like that but we don't take custody of it.

Date: November 28, 2001

ISO Element(s): 6.3 Infrastructure; 6.4 Work environment; 7.2.1 Determination of requirements related to the product; 7.5.4 Customer Property

Auditee Organization Code: FD41

Building: 4610, Room 1028B

N: What does POIC stand for?

A: Payload Operations and Integration Center.

N: Read highlight portions of 7.2.1 from the check list. It says: The organization shall determine b) requirements not stated by the customer but necessary for specified use or and intended use, where known, c) statutory and regulatory requirements related to the product, and d) any additional requirements determined by the organization. The auditor also read off the related list of MPG's and the MWI and asked if the auditee had them.

A: They're on the web.

N: Could you bring them up?

A: Yes, those are MPG's. What is the first number?

N: MPG 1050.1

A: Opened MPG 1050.1 Contract (Customer Agreement) Review. Do you want to see anything else?

N: Do you have the contract here?

A: No, it's in procurement

N: Do you have the management paperwork (project plan, etc.)?

A: Yes.

N: Reiterated what he was looking for in 7.2.1 and how they deal with non-stated customer requirements.

A: Auditee went looking on the computer for some contract-specific documentation. It had been moved and there wasn't an active link to it.

N: What contract is this on?

A: Company XXXX, They took those documents off-line. Showed the auditor some documents in a notebook.

Date: November 28, 2001

ISO Element(s): 6.3 Infrastructure; 6.4 Work environment; 7.2.1 Determination of requirements related to the product; 7.5.4 Customer Property

Auditee Organization Code: FD41

Building: 4610, Room 1028B

N: Can I see a copy of the contract?

A: Named the person who had it and the escort arranged to have him bring it to the auditee's office.

N: While we're waiting for the contract lets look at 6.3. The organization shall determine, provide and maintain the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable ... c) supporting services (such as transport or communication). Give list of objective evidence.

A: Those are MPG's – they are at the center level – I can show you our PIP's (Payload Integration Plans – I think). Showed him MSFC-RQMT-2436 which contains the communications system interface requirements. Also showed him the Communications Requirements Document.

N: Is there one project you can walk me through that shows all this?

A: There is a quality plan that follows ISO – MSFC-PLAN-904K. They got into a discussion of center level documentation versus the more detailed documentation he was being shown. Auditee walked the auditor through the Quality Plan showing how top level requirements were feed into the lower level documents.

N: (Talking to the COTR who had brought the contract) Maybe you can help me here – what do you have for when the requirements are not known.

A: Showed him Appendix A of the contract (NAS8-44000), which lists which documents are applicable to the contractor including the RQMT and PLAN documentation

A: Users give us very broad requirements – we take those requirements and put them into MSFC-PLAN-904 and MSFC-RQMT-1440 and then derive additional lower level requirements

N: Did you start with the broad requirements or did you start with the contract.

A: For this the contract started before station but we refreshed the contract after station so it's a chicken and egg sort of thing. The broad requirements come from a station document – we don't control it.

Date: November 28, 2001

ISO Element(s): 6.3 Infrastructure; 6.4 Work environment; 7.2.1 Determination of requirements related to the product; 7.5.4 Customer Property

Auditee Organization Code: FD41

Building: 4610, Room 1028B

N: So this is a subcontract?

A: No, this is our contract.

N: Are you a contractor?

A: No, I'm NASA. Discussed that from the Program standpoint FD41 would be considered a contractor, which would in turn make our contractor a subcontractor. Auditee mentioned that we don't use contracts between centers.

N: Do you transport any flight hardware?

A: No.

N: Do you have any special considerations for your work environment, such as clean rooms?

A: No, we do have computer labs, but for all work areas they just follow standard procedure.

N: 7.5.4 was the last one we worked backward but were talking about customer property.

A: The only property would be intellectual property.

N: What about software?

A: We don't have any property the customers give/gave us. We have some software that the JSC program office provides as a supplier not as a customer.

N: What is the Quality Policy?

A: It just changed. It's on my badge – auditee read it off.

Date: November 28, 2001

ISO Element(s): 6.3 Infrastructure; 6.4 Work Environment; 7.3.4 Design and development review; 7.3.7 Control of design and development changes

Auditee Organization Code: AD22

Building: 4750, Room 59A

N: What do you do?

A: We are responsible for all facilities (generally land and buildings although there is a strict definition for what a facility is). MPG 8823.1 Design Control of Facilities for determining what buildings must comply with. Have some OI's that tell how to support the MPG. OI for Construction of Facilities (over \$ 500 K) and one for local construction (under \$ 500 K). They are done slightly different. Design facilities and then purchase construction.

N: 7.3.4 Design Control – design and review process, actions, etc. Do you go through design reviews, validation, changes, etc.?

A: Yes, also have key offices which review the design and sign off (safety, environmental)

N: Read the requirements for element 6.4 which include the work environment, safety rules, etc.

A: Beyond just designing for these things we operate and control existing facilities to these requirements.

N: What is your title?

A: Deputy manager of Facilities Engineering Department, and acting lead of one of the departments

Team Lead of Civil/Structural Design Team

Center Structural Rep for ISO (in transition – won't be official until January)

(Note there were 3 different people present)

N: 6.3 Building Workspace and Environment – most of buildings are office space, do you have clean rooms.

A: Yes, those are taken into account in the design – the projects for those preceded full scope; have only done 3 facilities since MPG 8823.1 – process has always included design requirements validation and verification. MPG and OI define Quality Records. Since MPG have had 3 large projects and ~ 500 little projects/year (such as moving a door, extending a pipe, etc.)

Date: November 28, 2001

ISO Element(s): 6.3 Workspace and Environment; 6.4 Work Environment; 7.3.4 Design Control; 7.3.7 Design Changes

Auditee Organization Code: AD22

Building: 4750, Room 59A

N: 7.3.4 Design Review and 7.3.7 Design Changes. Do you do this?

A: Yes, the design Output is our product – the MPG tells us how to handle changes in the design.

Date: November 28, 2001

ISO Element(s): 7.2 Customer-related processes

Auditee Organization Code: ED38

Building: 4708, Room 1229

N: What is your title?

A: Team Lead, special Test Equipment and Design Group

N: What do you design?

A: Anything that isn't flight GSE or facilities. Listed off a bunch of things including Cryo piping, access platforms, test stands, etc.

N: Can I see a recent design and the associated review minutes?

A: Let me get one. Brought back the drawings for the SRB Separation Bolt Test Frame, Aft Bolt Assembly, drawing number 90M11467.

N: How do you get your requirements?

A: Most inputs are received over the phone or by e-mail, occasionally they are received with the test requirements. They have meetings with the requestor who must sign off on the drawings that the design meets their requirements. They don't keep formal records of the requirements other than what is documented on the drawings. There is a STE Design Group Support Request form that gets submitted to start the design process – this form often contains either the requirements or the Point of Contact(s) to get them.

N: This says you have to have an ATP. What is that and do you have one?

A: ATP is authority to proceed. The ATP is filed – I'll go get it. Looked at ATP and further discussed how requirements are documented. Including that the design is often changed

as the hardware is being built so not formally controlled. The auditor also looked at MPG 8060.2 Non-Flight and Non-Facility Design and Development.

N: Don't see you doing anything wrong but the drawing doesn't really match the MPG.

A: The process is imbedded in our OI. Showed the auditor ED38-OI-001 ED38 Design and Development and ED38-OI-002 ED38 Design Requirements and discussed what they covered.

N: What about Quality Records?

A: They are listed in the back section of the OI, each record references a paragraph that contains information on storage location, duration, etc.

Date: November 28, 2001

ISO Element(s): 7.2 Design Requirements

Auditee Organization Code: ED38

Building: 4708, Room 1229

N: Does it discuss disposal?

A: No, since the records are not PIA (Privacy Information Act) they can be thrown in the trash.

N: May want to call out that they can be thrown away. Will need to check higher level documentation and the standard. The old standard used to say that you have to specify the acceptable method(s) of disposal.

Date: November 28, 2001

ISO Element(s): 7.4, 6.3, 6.4, 7.5.4

Auditee Organization Code: PS01

Building: 4202

N: What is your title?

A: Deputy Director, Procurement Office

N: How are suppliers selected? Criteria? Records?

A: Processes are documented in Work Instructions (WI's) / Organizational Work Instructions (OWI's) which are flowed down from the Federal Acquisition Regulation



(FAR). The FAR contains requirements for a Source Evaluation process for contracts greater than \$25,000,000. All vendors must be given consideration as potential bidders for government contracts. PS-OWI-05 provides signature levels and authority for procurement personnel.

N: What is MWI?

A: Center-wide (Marshall) Work Instruction (OWI = organizational specific instruction).

N: MSFC is purchasing products and services?

A: Yes. MSFC does not typically sell anything – only purchases.

N: Could you demonstrate locating quality policies electronically?

A: Successfully demonstrated.

N: What is MPG 5000.1 Rev. C?

A: MPG = Marshall Policy Guideline. (Auditee then scrolls through MPG 5000.1C).

N: Where are Vendor Source Performance instructions?

A: PS-OWI-08, Rev. F

N: I would like to see.

A: Auditee scrolls through PS-OWI-08.

N: Where would I find a specific vendor list?

A: In specific contract files. A broad list of vendors could be viewed by looking at the “Past Performance Data Base.”

N: Are there limits on approvals?

A: View PS-OWI-05, which shows the dollar approval authority for different levels of contract officers for various contract documents.

Date: November 28, 2001

ISO Element(s): Purchasing

Auditee Organization Code: PS20

Building: 4202

N: Show me a small purchase order.

A: Shown PO# H33169D.

N: What is the contract vendor number? Who is the vendor?

A: Data supplied.

NQA Surveillance Audit

N: What is the PO \$ value?

A: \$\$\$\$.

N: Who signed?

A: Answer given

N: What is her \$ signature authority?

A: Up to \$1,000,000.

N: Walk me through this P.O.

A: Done

N: Show me another.

A: Done. (P.O. # H-34684D, Vendor # 55908, Cage Code: 00XZ1, Contract value = \$\$\$\$.)

N: What is the MSFC Quality Policy?

A: Answer correctly stated.

Date: November 28, 2001

ISO Element(s): 6.3, 4.1, 7.5.4

Auditee Organization Code: PS50

Building: 4203

N: What is your title?

A: Space Transportation Support Department Manager

N: What is this contract #?

A: NAS8-0198

N: Vendor?

A: XXXX. Vendor #: 10860

N: (Note: an earlier question was asked concerning section 6.3, and objective evidence was supplied in the form of a copy of a statement of work that was supplied to the auditor for a contract that was in the process of final negotiation.)

N: Tell me about customer property (7.5.4).

A: Some contracts may require delivery of property that must be protected by the Government if it is pre-existing data (data generated as a result of the contract work is

property of the Government). Non-disclosure agreements and data rights are negotiated as part of the contract.

Date: November 29, 2001  
Shift: Morning

ISO Element(s): 8.3  
Auditee Organization Code: QS 10  
Building: 4705

N: Talk about 8.3, non-conforming product. What is your title?

A: Inspection Team Lead QS 10.

N: (Read standard of new section).

A: If we receive a non-functional product, we generate a TDR and issue a DR against it.

N: If it comes in defective, what happens?

A: Initiate an Inspection & Acceptance Report (I&AR) rejection, generate DR or go back to IRR system @ property management.

N: As it comes in, what if you break it or drop it?

A: We would issue a DR.

N: Final Inspection use DR also?

A: Yes, state disposition.

N: Can you give an example?

A: We will see the area they are stored.

N: I want to see the holding area.

A: Ok

N: (Read process standard). When you change the manual, do you put in change bars?

A: No, just include changes up front.

N: With large manuals, the individual wants to go immediately to what was changed. PTS procurement tracking system?

A: Yes

N: What does it mean, accepted as is?

A: COTR says to accept on the I&AR and describe condition and obtain disposition on the DR.

- N: I want to look at a couple of items  
A: (Showed X38 electrical interface panel. Explained process for attaching hold tags. Showed log. Showed electrical fabrication shop).
- N: If DR is on item, why is it in test?  
A: Was replaced, repaired sent back to test.
- N: Do you know the quality policy?  
A: We have a high quality policy for *Contractor Name*, exact wording escapes me.
- N: Does she work for MSFC?  
A: No, she works for XXX, MSFC contractor.
- N: Is the laboratory tabletop grounded?  
A: Yes, uses a new homogeneous tabletop.
- N: (Asked a MSFC employee if he knew the quality policy).  
A: Provide quality products and services to our customers replied the employee.
- N: Asked the same employee, who was the management ISO representative?  
A: Axel Roth replied employee.

Date: November 29, 2001  
Shift: Morning  
ISO Element(s): 8.2.3  
Auditee Organization Code: FD 21  
Building: 4610

- N: Talk about what you do.  
A: Manager of ECLS, (explained organization chart and the organization function i.e. to support ISS, provide engineering support of 3 racks of hardware to support crew life on station, 32 civil servants, 14 contractors, showed program plan, reviewed customer list, discussed the on center support, showed graphic presentation of a rack).
- N: This is a high level audit of compliance with 9k2k elements 8.2.3. Looking for in house on how you measure if process in not working, what's been put in place. Don't go into product, I want to see how the process works.  
A: We start with project plans i.e. how we do business.
- N: Is this the contract?  
A: No, this the project plan, other documents take care of contract requirements etc. We conduct regular meetings with the supplier, report monthly and quarterly to the directorate and center director for status. (Showed quarterly report).

N: What's the report called?

A: Project Review Status Report. It is our metric. (Reviewed Document phase, Design Phase, Management and Test Procedures).

N: I want to see an example of an item that has gone through the change control board. I have never seen a chart that shows how the center measure center processes. I want to see a change and how it was made. Take the last two and walk me through them.

A: (Showed Risk Management Plan).

N: This is what I have been looking for to answer the process question.

A: There is another item used, Management Self Assessment.

N: How long have you been doing this?

A: We started full implementation approximately six months ago. Each month we try to look at how to get better or do more.

N: I am going to close the previous finding based on what is being done with ECLSS. Now walk me through a change and why it was made.

A: (Explained ECR and CCB/DCB processes by CM Specialist/CCB secretary).

N: What is the quality policy?

A: (CM Specialist read it from his badge card).